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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,726

03/22/2005

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EXAMINER

JIANG, YONG HANG

ART UNIT

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2612

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,726	<b>Applicant(s)</b> KADOUCHI ET AL.	
	<b>Examiner</b> YONG HANG JIANG	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/27/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on 4/1/2008 has been entered. Claims 1-26 are pending. None of the claims are amended.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-3, 7-9, 11, 13-14, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori (JP 2003-102068), and further in view of Erickson et al. (US 2002/0180588).

Regarding claim 1, Hattori discloses a device (via vehicle mounted machine 10) comprising: an input reception portion (via receive section 20 with antenna 18) for

detecting an input electromagnetic wave (signals) transmitted from a transmission terminal (pocket machine 12) at a predetermined timing and receiving the input electromagnetic wave; a lock control portion (via door-lock motor 28) for unlocking or locking a lock mechanism according to the input electromagnetic wave received by the input reception portion; and a timing change portion (via CPU 16 compares the current time and location information with the information stored on memory storage 32, if the information don't match, the intermittent mode of the receive section 20 is set to a shorter period of time by CPU 16 for receiving signals) for changing a timing at which the input reception portion detects the input electromagnetic wave. (See Paragraphs 14-18, and 30-31; and Figures 1 and 3)

But Hattori fails to disclose the timing change portion sets a frequency of the timing higher when input electromagnetic waves are detected a plurality of times for a predetermined period of time.

Erickson teaches a document and file management system using radio frequency identification (RFID) tags. The system has an automated polling system to poll RFID tags attached to documents periodically to keep track of the location of the documents. An optical sensor could be placed in or near a storage area for the documents to detect activity in that area, and the automated polling system could accordingly increase the polling schedule depending on the number of traffic detected by the optical sensor in the storage area. If the number of people detected is more than a predetermined number, the system could alter the polling schedule to poll more frequently. (See the Abstract and Paragraph 50)

From the teachings of Erickson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Hattori to include the timing change portion sets a frequency of the timing higher when input electromagnetic waves are detected a plurality of times for a predetermined period of time as taught by Erickson to accommodate the increase in activity of the usage of the device thereby making the device more responsive in periods of higher activity.

Regarding claim 2, Hattori discloses the timing change portion changes the timing according to a time zone (via CPU 16 compares the current time and location information with the information stored on memory storage 32, if the information don't match, the intermittent mode of the receive section 20 is set to a shorter period of time by CPU 16 for receiving signals, See Paragraph 31).

Regarding claim 3, Hattori discloses a position detection portion (via self-vehicle location detection equipment 28) for detecting a position of the electromagnetic wave reception device; wherein the timing change portion changes the timing according to the position detected by the position detection portion. (See paragraphs 16 and 31)

Regarding claim 7, Hattori discloses the input reception portion is powered by a battery (via receive section 20 is connected to the dc-battery 24, See Paragraph 15 and Figure 1).

Regarding claim 8, Hattori discloses a vehicle comprising the electromagnetic wave reception device of claim 1. (See Paragraph 13)

Regarding claim 9, Hattori discloses a vehicle of claim 8, wherein the input reception portion is powered by a battery (via dc-battery 24, See paragraph 15 and Figure 1).

Regarding claim 11, Hattori discloses a keyless entry system (via mounted machine 10 and pocket machine 12) comprising: an electromagnetic wave reception device (via mounted machine 10) installed in a vehicle comprising: an input reception portion (via receive section 20 with antenna 18) for detecting an input electromagnetic wave (signal) transmitted from a transmission terminal (pocket machine 12) at a predetermined timing and receiving the input electromagnetic wave; a lock control portion (via door-lock motor 28) for unlocking or locking a lock mechanism according to the input electromagnetic wave received by the input reception portion; and a timing change portion (via CPU 16) for changing a timing at which the input reception portion detects the input electromagnetic wave; and an electromagnetic wave transmission device (via pocket machine 12) for transmitting a signal to the electromagnetic wave reception device. (See Paragraphs 14-18, and 30-31; and Figures 1 and 3)

But Hattori fails to disclose the timing change portion sets a frequency of the timing higher when input electromagnetic waves are detected a plurality of times for a predetermined period of time.

Erickson teaches a document and file management system using radio frequency identification (RFID) tags. The system has an automated polling system to poll RFID tags attached to documents periodically to keep track of the location of the documents. An optical sensor could be placed in or near storage area for the

documents to detect activity in that area, and the automated polling system could accordingly increase the polling schedule depending on the number of traffic detected by the optical sensor in the storage area. If the number of people detected is more than a predetermined number, the system could alter the polling schedule to poll more frequently. (See the Abstract and Paragraph 50)

From the teachings of Erickson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the keyless entry system of Hattori to include the timing change portion sets a frequency of the timing higher when input electromagnetic waves are detected a plurality of times for a predetermined period of time as taught by Erickson to accommodate the increase in activity of the usage of the keyless entry system thereby making the system more responsive in periods of higher activity

Regarding claims 13 and 14, Hattori discloses the input reception portion is powered by a battery (via receive section 20 is connected to the dc-battery 24, See Paragraph 15 and Figure 1).

Regarding claims 18 and 19, Hattori discloses a vehicle comprising the electromagnetic wave reception device of claims 2 or 3 (See Paragraph 13).

Regarding claims 23 and 25, the combination of Hattori and Erickson discloses the structural elements of the claimed invention but fail to disclose the electromagnetic wave reception device further comprising: a clock portion for outputting a clock signal having a selected clock frequency among a plurality of clock frequencies.

However, it is obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hattori and Erickson to include the electromagnetic wave reception device further comprising: a clock portion for outputting a clock signal having a selected clock frequency among a plurality of clock frequencies in order to change the detecting frequency of the input reception portion thereby allowing faster response in more active periods.

5. Claims 4-6, 15-17, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori in view of Erickson et al., and further in view of Pombo et al. (US 5,799,256).

Regarding claim 4, the combination of Hattori and Erickson discloses the structural elements of the claimed invention but fails to disclose a history information generation portion for generating history information, which is information on a history of reception of the input electromagnetic wave by the input reception portion; wherein the timing change portion changes the timing according to the history information.

Pombo et al. teach a method and apparatus for reducing power consumption in a portable communication device (104) by predicting a user's location, movement and actions. The portable communication device (104) is powered by a battery (120) and includes a battery control (122) for decoupling portions of the communication device (104) from the battery. Historical records of control channel and call activity are maintained in memory (117) at the communication device (104). This data is used to predict calls. This permits the communication device (104) to conserve power in the battery (120) when no call activity is likely. (See the Abstract)



From the teachings of Pombo et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hattori and Erickson to include a history information generation portion for generating history information, which is information on a history of reception of the input electromagnetic wave by the input reception portion; wherein the timing change portion changes the timing according to the history information in order to conserve power when reception of the input electromagnetic wave is unlikely.

Regarding claim 5, the combination of Hattori, Erickson, and Pombo disclose the claimed invention wherein Pombo discloses the history information generation portion generates history information of time when the input electromagnetic wave is received (via historical records of activity are maintained in memory at the device to predict future activity, See the Abstract).

Regarding claim 6, the combination of Hattori, Erickson, and Pombo disclose the structural elements of the claimed invention wherein Hattori discloses a position detection portion (via self-vehicle location detection equipment 28) for detecting a position of the electromagnetic wave reception device (See paragraphs 16 and 31), but Hattori failed to disclose the history information generation portion generates history information of a position where the input electromagnetic wave is received, according to the position detected by the position detection portion.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hattori and Pombo et al. to include the history information generation portion generating history information of a position

where the input electromagnetic wave is received, according to the position detected by the position detection portion in order to change the timing portion to conserve power when reception of the input electromagnetic wave is unlikely in some areas.

Regarding claims 15-17, Hattori discloses the input reception portion is powered by a battery (via receive section 20 is connected to the dc-battery 24, See Paragraph 15 and Figure 1).

Regarding claims 20-22, the combination of Hattori and Erickson discloses a vehicle comprising the electromagnetic wave reception device of claims 4, 5, or 6. (See Hattori, Paragraph 13)

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori (JP 2003102068 A), and further in Flick (US 7,005,960).

Regarding claim 10, Hattori discloses an electromagnetic wave transmission device (via pocket machine 12) comprising: a switch (via actuation switch 44); a transmission portion (via antenna 46) for transmitting an electromagnetic wave for a predetermined period of time when the switch is turned on. (See Paragraph 21 and Figure 1)

But Hattori failed to disclose a transmission control portion for controlling so as to transmit a second electromagnetic wave for a longer period of time than a first electromagnetic wave when the switch is turned on at least twice within a predetermined period of time.

Flick teaches a handheld transmitter in a remote keyless entry system that transmits signals to unlock a driver's door on a vehicle when a door unlock button is first

actuated by a user. If the user desires to unlock all the doors on the vehicle, the user just need to actuate the door unlock button a second time within a predetermined period of time of the first door unlock button actuation (See Col. 1, lines 26-42).

From the teachings of Flick, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Hattori to include a transmission control portion for controlling so as to transmit a second electromagnetic wave for a longer period of time than a first electromagnetic wave when the switch is turned on at least twice within a predetermined period of time in order to make the second electromagnetic wave contain more functions compared to the first electromagnetic wave, thereby making the switch on the electromagnetic wave transmission device multi-functional.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori in view of Erickson et al. as applied to claim 11 above, and further in view of Flick (US 7,005,960).

Regarding claim 12, the combination of Hattori and Erickson disclose the structural elements of the claimed invention wherein Hattori discloses an electromagnetic wave transmission device (via pocket machine 12) comprising: a switch (via actuation switch 44); a transmission portion (via antenna 46) for transmitting an electromagnetic wave for a predetermined period of time when the switch is turned on. (See Paragraph 21 and Figure 1)

But Hattori failed to disclose a transmission control portion for controlling so as to transmit a second electromagnetic wave for a longer period of time than a first

electromagnetic wave when the switch is turned on at least twice within a predetermined period of time.

Flick teaches a handheld transmitter in a remote keyless entry system that transmits signals to unlock a door on a vehicle when a door unlock button is actuated by a user. If the user desires to unlock all the doors on the vehicle, the user just need to actuate the door unlock button a second time within a predetermined period of time of the first door unlock button actuation. (See Col. 1, lines 26-42)

From the teachings of Flick, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hattori and Erickson to include a transmission control portion for controlling so as to transmit a second electromagnetic wave for a longer period of time than a first electromagnetic wave when the switch is turned on at least twice within a predetermined period of time in order to make the second electromagnetic wave contain more functions compared to the first electromagnetic wave, thereby making the switch on the electromagnetic wave transmission device multi-functional.

8. Claims 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori and Erickson as applied to claim 23 or 25 above, and further in view of Kehlstadt (US 2002/0093481).

Regarding claim 24, the combination of Hattori and Erickson discloses the structural elements of the claimed invention but fail to disclose the reception device further comprising a switch, wherein responsive to the switch being turned on or off, the

timing change portion changes the selected clock frequency to a highest clock frequency from among the plurality of clock frequencies.

Kehlstadt teaches a device that stays in a battery saving mode with long idle time unless activity is detected by the device. When activity is detected, the device resumes to an active state. (See paragraph 4)

From the teachings of Kehlstadt, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hattori and Erickson to include a switch as a mechanism to detect activity, and wherein responsive to the switch being turned on or off, the timing change portion changes the selected clock frequency to a highest clock frequency from among the plurality of clock frequencies as taught by Kehlstadt to put the reception device in an active state.

Regarding claim 26, the combination of Hattori and Erickson discloses the structural elements of the claimed invention but fail to disclose the keyless entry system is responsive to the vehicle being turned on or off, the timing change portion changes the selected clock frequency to a highest clock frequency from among the plurality of clock frequencies.

Kehlstadt teaches a device that stays in a battery saving mode with long idle time unless activity is detected by the device. When activity is detected, the device resumes to an active state. (See paragraph 4)

From the teachings of Kehlstadt, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hattori and Erickson to include the keyless entry system is responsive to the vehicle being

turned on or off, the timing change portion changes the selected clock frequency to a highest clock frequency from among the plurality of clock frequencies in order to put the system in an active state.

### ***Response to Arguments***

9. Applicant's arguments filed 4/1/2008 have been fully considered but they are not persuasive.

Applicant first argues on the 1<sup>st</sup> paragraph of page 5 that Erickson does not teach changing the frequency of the timing based on a condition (detection of waves a plurality of times within a period). The examiner respectfully disagrees. Erickson teaches an automated polling system that changes the polling schedule, which is changing the frequency of polling, of RFID tagged items depending on a condition (activity level detected in the area, e.g. when there are more optical [type of EM wave] responses detected by an optical sensor). Therefore, Erickson does teach changing the frequency of the timing based on a condition.

Applicant next argues on the 1st paragraph of page 7 that Pombo is silent regarding the use of detection of an input electromagnetic wave a plurality of times as a condition for a higher timing frequency. Because of Examiner's assertion that the teachings of Erickson are meeting the claimed limitations, the arguments posted by the applicants do not apply.

Applicant next argues on the 1<sup>st</sup> full paragraph of page 8 that Flick is silent regarding anything related to transmission of "a second electromagnetic wave for a longer period of time than a first electromagnetic wave when the switch is turned on at least twice within a predetermined period of time".

The examiner respectfully disagrees. Flick teaches a handheld transmitter in a remote keyless entry system that transmits signals to unlock a driver's door on a vehicle when a door unlock button is first actuated by a user. If the user desires to unlock all the doors on the vehicle, the user just need to actuate the door unlock button a second time within a predetermined period of time of the first door unlock button actuation.

If the front vehicle doors and back vehicle doors are operable by a different switch with a different signal, then, in order to implement the function of unlocking all the doors on the vehicle at the second push of the same door unlock button, one of ordinary skill in the art could design the transmitter to send a signal of unlocking the front doors right after sending a signal of unlocking the rear doors. Therefore, the second electromagnetic wave will be transmitted for a longer period of time as it is sending two signals compared to sending only one signal when the switch is first turned on. Therefore the claim limitations are rendered obvious. Therefore the second signal is considered a culmination of the first (front door) and second (rear door) unlock signals.

***Conclusion***

10. Applicant's arguments are not persuasive; therefore, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG HANG JIANG whose telephone number is (571)270-3024. The examiner can normally be reached on M-F 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. J./

Examiner, Art Unit 2612

/Brian A Zimmerman/

Supervisory Patent Examiner, Art Unit 2612